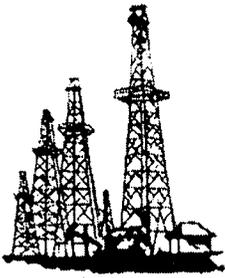


004



*Petroleum and Energy Consultants
Registered in Rocky Mountain States
Oil & Gas Production*

BURKHALTER ENGINEERING, INC.

751 Horizon Ct., Suite 245
P.O. Box 60095
Grand Junction, Co 81506
Telephone (970) 243-6060
Fax (970) 243-6015
Mobile (970) 260-0765

December 23, 2004

Ms. Carol Daniels
Division of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, UT 84114-5801

Re: APD's
Nine San Arroyo Wells (All Federal)
Grand County, UT

Dear Ms. Daniels:

Enclosed are complete copies of APD's filed with the Moab office of the BLM for Drilling Permits for the following Unit wells:

San Arroyo Unit #51 (Directional); All others, Vertical: San Arroyo Unit Nos. 52, 53, 54, 55, 56, 57, 58 and 59.

Please have a look and assign API numbers. If you have questions, or need further information, please call.

Very truly yours,


J. N. Burkhalter, PE

RECEIVED
DEC 28 2004
DIV. OF OIL, GAS & MINING

RECEIVED

DEC 28 2004

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIV. OF OIL, GAS & MINING

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		3. Lease Serial No. UTU-05059-C	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Crescendo Energy, LLC		7. If Unit or CA Agreement, Name and No. San Arroyo Unit	
3a. Address P.O. Box 1814, Midland, TX 79702		8. Lease Name and Well No. San Arroyo Unit #51	
3b. Phone No. (include area code) 432-697-7221		9. API Well No. 43019-31425	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1850 FSL, 1984 FWL NESW At proposed prod. zone 324 FSL, 2380 FWL SESW		10. Field and Pool, or Exploratory San Arroyo JSO	
14. Distance in miles and direction from nearest town or post office* Approx 30 mi NW of Mack, CO		11. Sec., T. R. M. or Blk. and Survey or Area Sec 15, T16S, R25E, SLM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 267		12. County or Parish Grand	
16. No. of acres in lease 120		13. State UT	
17. Spacing Unit dedicated to this well San Arroyo Unit		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. No Wells	
19. Proposed Depth 6700 TVD, 6921 MD		20. BLM/BIA Bond No. on file BLM Bond 0437483	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7510 Grnd		22. Approximate date work will start* 05/01/2005	
		23. Estimated duration 4 to 5 weeks	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>J. N. Burkhalter</i>	Name (Printed/Typed) J. N. Burkhalter	Date 12/22/04
--	--	------------------

Title Consulting Engineer/Agent		
------------------------------------	--	--

Approved by (Signature) <i>Bradley G. Hill</i>	Name (Printed/Typed) BRADLEY G. HILL	Date 01-05-05
---	---	------------------

Title ENVIRONMENTAL SCIENTIST III		
--------------------------------------	--	--

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

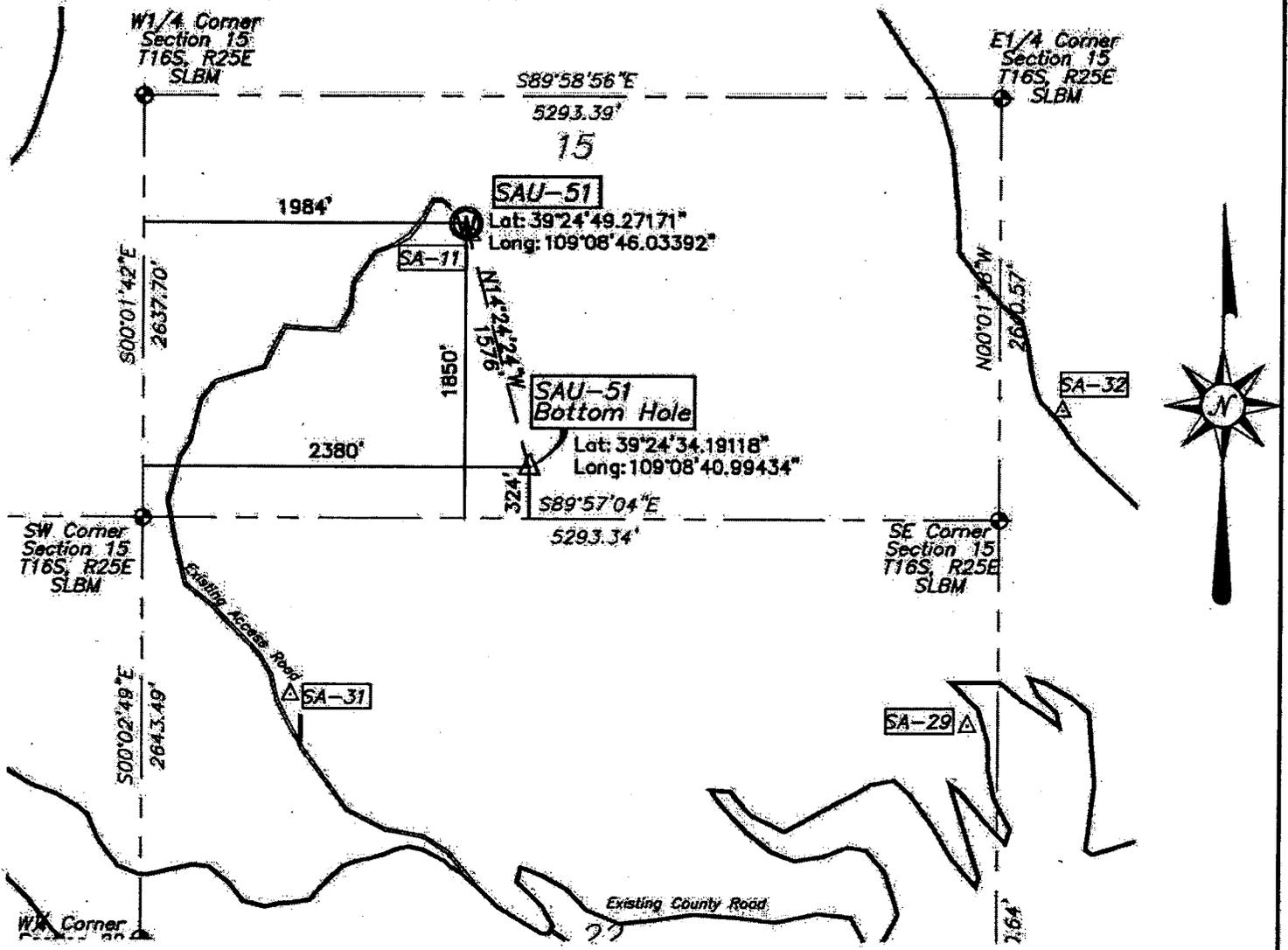
*(Instructions on page 2)

Surf 659658 X
4364117 Y
39.413682
109.145460

BHL 659789 X
4363655 Y
39.409498
-109.144056

Federal Approval of this
Action is Necessary

LOCATION EXHIBIT - PLAT 1 OF PARCEL LOCATED IN SECTION 15, T16S, R25E, SLBM (SAN ARROYO UNIT 51)



Date of Survey: November 9, 2004

Date of Drawing: November 17, 2004

SCALE: 1"=1000'
 1000 500 0 1000



SURVEYOR'S CERTIFICATION

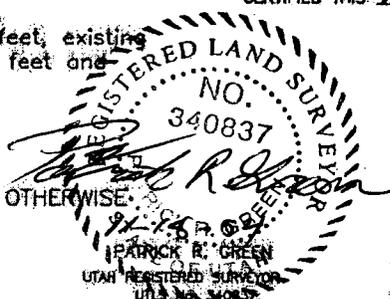
I hereby certify that this plat represents a field survey completed under my direct supervision during November, 2004, and that both have been completed according to the standards of practice and the laws of the State of Utah, and are correct to the best of my knowledge.

CERTIFIED THIS 18 DAY OF NOV, 2004

1. This Well Location Plat was prepared for Crescendo Energy, LLC to show the location of San Arroyo SAU-51 Bottom Hole which is located 2380 feet East and 324 feet North from the position of the Southwest corner of Section 15, T16S, R25E, SLBM, based on the Southwest corner, the Southeast corner, the West Quarter corner, and the East Quarter corner of Section 15, T16S, R25E, SLBM.
2. Latitude and Longitude are based on NAD 83.
3. Elevations are based on NAVD 88.
4. Well ties measured at 90° from Section line.
5. Improvements: Existing gas pipeline at 204 feet, existing well head for SA-11 and appurtenances at 84 feet and beyond from Well Head.
6. Surface use: Existing well pad.

LEGEND

- FOUND GLO SURVEY MARKER, UNLESS NOTED OTHERWISE.
- FOUND REBAR, AS NOTED
- STAKED WELL SITE



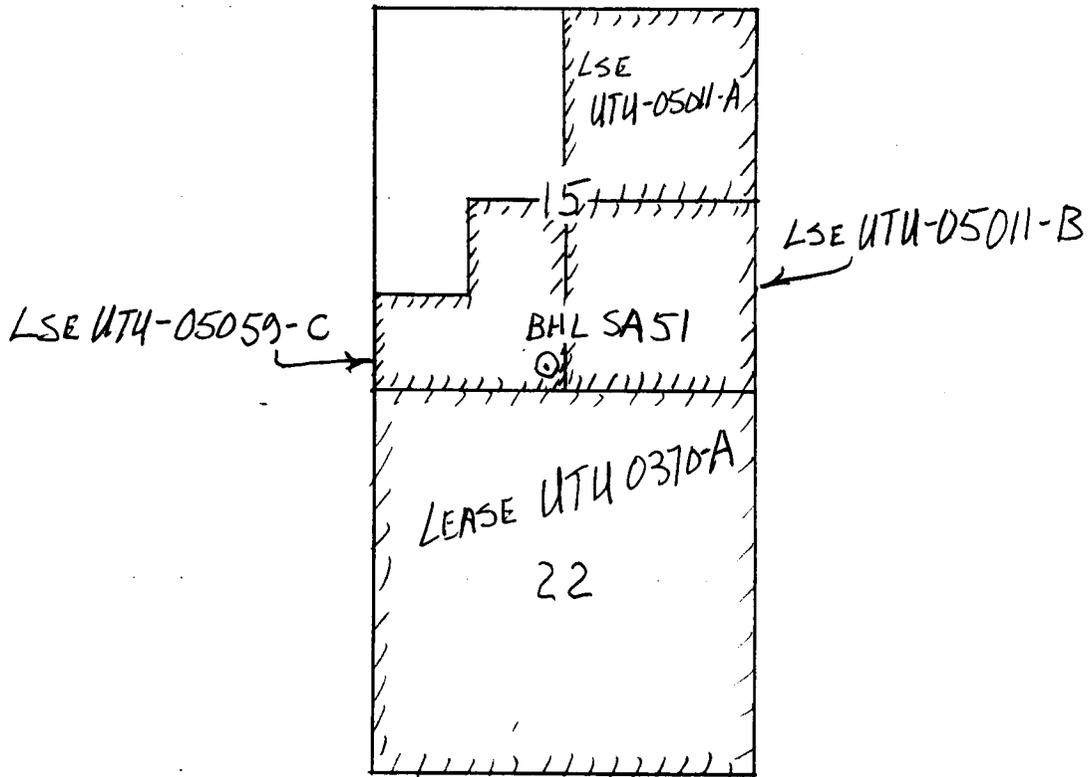
LOCATION EXHIBIT - PLAT 1

SECTION 15
T16S, R25E, SLBM
GRAND COUNTY, UTAH

LANDesign

ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7th STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PRGJ. NO.	SURVEYED	DRAWN	CHECKED	SHEET	OF
NO. 2004-62					
DATE: Nov., 2004		RSK	PRG	1	1



LEASES UTH-05059-C
 UTH-05011-A
 UTH-05011-B
 UTH-0370-A] ALL OWNED BY CRESCENDO ENERGY, LLC

∴ 460' RULE DOES NOT APPLY

SAN ARROYO UNIT # 51 (DIRECTIONAL)

SAN ARROYO UNIT #51

FEDERAL LEASE

1. DRILLING PLAN

- a. **Name of Well:** San Arroyo Unit #51
- b. **Surface Location of Well:** 1850 FSL, 1984 FWL, Sec 15, T16S, R25E, SLM
Grand County, Utah
Bottom Hole: 324 FSL, 2380 FWL, Sec 15, T16S, R25E, SLM
- c. **Federal Lease No.** UTU-05059-C
- d. **Ungraded ground elevation:** 7510' above sea level
- e. **The surface formation:** Cretaceous Mesa Verde
- f. **Drilling Equipment:** Rotary drilling equipment will be used to drill the well to a TD of 6700' TVD, 6921 MD and run casing. Standard 9" 3000 lb BOP double ram stack will be employed. A completion rig will be employed to complete the well.
- g. **The Total Depth** of the well is planned to be 6700' TVD, 6921 MD
- h. **Tops of Geologic Markers:**
- | | |
|----------------|----------------------|
| Surface: | Mesa Verde Formation |
| Castle Gate | 2154 TVD, 2191 MD |
| Dakota | 5728 TVD, 5937 MD |
| Cedar Mountain | 5876 TVD, 6092 MD |
| Morrison | 5993 TVD, 6214 MD |
| Total Depth | 6700 TVD, 6928 MD |
- i. **Estimated depths of fluid-bearing formations:**
- Castle Gate: gas/water 2154, TVD, 2191 MD
Dakota: gas/water 5728 TVD, 5937 MD
Cedar Mountain: gas/water 5876 TVD, 6092 MD
Morrison: gas/water 5993 TVD, 6214 MD
- j. **The primary geologic objective is:**
- Morrison: 5993 to 6700 TVD, 6214 to 6928 MD
- k. **Casing:**
Surface: A 12 1/4" surface hole will be drilled to 250' and 8 5/8" 36 lb new J55, API 8rnd ST&C csg will be run to 250' and cemented to surface with 150 sx regular cement mixed as follows: Class "G" (regular) cement containing 2% CaCl, 1/8 lb/sk Floseal, density 15.6 lb/gal, yield 1.18 cuft/sk. Cement will circulate.

Intermediate: An 8 3/4" hole will be drilled through Castlegate to approximately 2300 TVD, 2337 MD depending on geology and 7 5/8" 26.4 lb new J55, API 8rnd ST&C csg will be run and cemented with 120 sx Halliburton Light Cement containing 23.5 lb/sk Class "G" cement, 52.375 lb/sk Poz, 7.64 lb/sk Lime, 6.11 lb/sk Gel, 0.25 lb/sk poly-e-flake. Slurry weight 11.00 lb/gal, yield 2.73 cuft/sk. Cement to surface.

Production: A 6 1/2" hole will be drilled to projected depth of 6700 TVD, 6921 MD depending on geology, and 4 1/2" 11.6 lb new J55 API 8rnd ST&C csg will be run to TD and cemented with 150 sx thixotropic cement comprised of Class "G" (regular) cement containing 10.0 lb/sk Calseal, 0.2 lb/sk Halad 344, 5 lb/sk gilsonite, density 14.2 lb/gal, yield 1.44 cuft/sk to cover all possible porous zones with a minimum of 200' of cement.

l. Pressure Control: A standard 9" 3000 lb double ram BOP will be flanged up and tested initially and monthly thereafter to TD. Rams will be operated during trips.

m. Mud Program: Fresh gel mud consisting of native clays, fresh water and bentonite will be used for the surface hole. Mud with at least 2% KCl (potassium chloride) will be used for the intermediate and production holes.

n. Testing, Logging and Coring Programs:

Testing: If returns indicate the need for a DST, testers will be called.

Mud Logging: A mud logging unit will be employed from 100' above the Castlegate.

Open Hole Logging: Electric and porosity logs will be run in open hole after intermediate casing depth is reached and after TD is reached.

Cased Hole Logging: A Gamma ray correlation and cement bond log will be run prior to perforating in cased hole.

Coring Program: No coring is planned for this well.

o. No abnormal pressures or H₂S is anticipated in this well. Bottom Hole Pressure is estimated to be 1800 psi.

p. Anticipated spud date is May 1, 2005. Drilling time will be approximately three weeks from spud to move off of the drilling rig.

2. BOP TEST PROCEDURES: Immediately after nipping up the double ram BOP to the surface pipe, professional testers will be called to the location and BOP tested to 2500 psi, both sets of rams and flanges.

3. MULTI-POINT SURFACE USE PLAN (13-Point Plan)

a. The land survey for the location was performed by LANDesign of Grand Junction, Colorado. Cultural resources were cleared by Mike Piontkowski of Uncompahgre Archaeological Consultants, Grand Junction, CO.

b. **(See Map) To reach the location** from Mack, CO, proceed westerly on old Hwy 6 approximately 10.0 miles to San Arroyo Road, turn right (north), stay on main traveled road for approximately 17 mi to San Arroyo Plant, go past Plant on main road for another 2.8 mi to existing San Arroyo 53 Access Road. This is also road to San Arroyo #11.

c. **Access Road:** See Map. No new of Access Road will be required for this well.

d. **Planned Access Road:** No new Access Road is required for this well as it will be located on the existing San Arroyo #11 location.

e. **Wells within a one-mile radius of proposed well:**

- 1) There are no known water wells within the one-mile radius.
- 2) There are no known P&A well within the one-mile radius.
- 3) There are no known salt water disposal wells in the one-mile radius
- 4) There are thirteen (13) known producing wells in the one-mile radius:
 - CSW Sec 22, T16S, R25E, SLM
 - NWSENW Sec 22, T16S, R25E, SLM
 - SENWNW Sec 22, T16S, R25E, SLM
 - NESWNE Sec 21(2 Wells), T16S, R25E, SLM
 - NESWNE Sec 16(2 Wells), T16S, R25E, SLM
 - SENESW Sec 15, T16S, R25E, SLM
 - SWNENE Sec 15, T16S, R25E, SLM
 - SWSWSW Sec 14, T16S, R25E, SLM
 - NWSENW Sec 23(2 Wells), T16S, R25E, SLM
 - NESENE Sec 22, T16S, R25E, SLM
- 5) There are no known currently permitted wells in the one-mile radius.
- 6) There are no known monitoring wells in the one-mile radius

f. **Production facilities** such as separators, dehydrators, flow meters and tanks will be located on the disturbed portion of the well pad. If gravel is needed for foundation under tanks or gas processing equipment, it will be hauled in. All other material will be obtained from the site such as dirt for the dikes around tanks.

g. **Above ground structures** will be painted according to BLM selected colors. BLM states colors will be selected at onsite and included in stipulations with permit.

h. **Reserve Pit:** Will be fenced on three sides during drilling. After the drilling rig is moved out, Reserve Pit will be fenced on fourth side and fence maintained for the life of the pit – until final reclamation.

i. **Tanks or Tank Batteries:** A tank or tank battery will be surrounded by an impervious dike of sufficient size and height to contain 110% of the largest tank in the battery.

j. **If any oil/liquid hydrocarbons** resulting from drilling or completion end up in the pit, the pit will be flagged/netted.

k. **Off-Site Facilities:** No off-drill pad facilities are anticipated for the well. Condensate will be stored on the drill pad and gas piped off to the sales pipeline nearby.

l. **Proposed Pipeline Facilities:** The Sales Gas line will be installed to the east, staying on the Access Road and hook up to existing pipeline in Sec 22. After completion and testing, a Sundry Notice will be filed describing the pipeline needed to produce this well.

m. **Location and Type of Water Supply:** Water for mixing drilling mud and cement will be trucked from the Ute Water facility at Mack, CO, approximately 30 miles from the location. Ute water is purified domestic water and will not cause any deleterious affects to the environment. Water will be bought under Ute Water Permit No. B004.

n. **Source of Construction Materials:** No material will be removed from Federally owned sources. If gravel is needed for foundation under production facilities, there are several commercial gravel pits in the area. The dike around the tank will be constructed from dirt found on the location.

o. **Methods of handling waste disposal:** Design of pit and its usage. Sewage disposal. Garbage and trash handling.

A. The reserve pit will be designed to prevent the collection of surface runoff. The pit will be lined with a 12-mil or thicker polyethylene to prevent leakage of fluids. The liner will be rolled in place and recurred at the ends, i.e. buried on the top of the pit berms. Prior to use, the reserve pit will fenced "stock tight" on three sides, the fourth side will be fenced at the time of rig release and removal, at which time the pit will be flagged. Drilling fluids and cuttings will be constrained in the reserve pit.

Fluids in the reserve pit will be allowed to evaporate prior to being backfilled. Pit will remain fenced until backfilled.

B. Produced liquid hydrocarbons will be constrained in test tank(s) during completion and testing.

C. Sewage will be handled in self-contained, chemically treated portable toilets and contents hauled off location to an authorized facility in accordance with State and local regulations.

D. Garbage and other trash will be contained in an acceptable trash receptacle, which will be enclosed. Refuse will be transported to an approved sanitary landfill upon completion of operations.

E. Trash will be picked up if scattered and contained in receptacles during drilling/completion/construction operations.

p. Ancillary Facilities: None Required.

q. Well site layout including plats, cuts, fills, cross sections, parking for vehicles, top soil storage, location of pits including reserve pit, erosion control.

A. See Survey Plats.

B. Cut and fill cross sections indicated on survey exhibits. Sufficient material will be available to backfill the reserve pit after drilling and completion activities.

C. All equipment will be confined to the access road, pad and areas specified in the APD.

D. Prior to construction, all topsoil will be removed from the entire site and stockpiled as directed by the BLM during the onsite. Topsoil will be stripped to a depth of 6 to 8 inches where possible.

E. Soil material and overburden will not be pushed over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved.

F. The location (including reserve pit) will be designed to prevent the collection of surface runoff.

G. Adequate erosion control barriers will be installed at the drill pad to minimize storm water runoff. Water drainage upslope from the drill pad will be addressed at the time of construction to keep it from ponding on the pad.

r. Surface Reclamation Plans:

A. Rat and mouse holes will be backfilled and compacted from bottom to top immediately upon release of the drilling rig from the location.

B. Backfilling of the pit will be done when the contents have been sufficiently dewatered.

C. Production Operations:

a. If the well is productive, areas not required for operations will be contoured and water barred to support vegetation and reduce erosion. All disturbed areas will be seeded with seed mixture prescribed by BLM. Seeding will be done after September 15th and/or prior to ground frost or seed will be planted after the last frost and before May 15th. Slopes too steep for machinery will be hand broadcast and raked with twice the specified amount of seed.

b. Noxious weeds will be controlled on the location in accordance with BLM guidelines.

c. Rehabilitation will begin upon the completion of the well. Complete rehabilitation will depend on weather conditions and the amount of time required to sufficiently dewater the reserve pit.

s. Abandoned Well Plans:

- A. In the event of a dry hole, the location will be re-contoured, the top soil will be distributed evenly over the entire location. The seed bed will be prepared by disking to a depth of four(4) to six(6) inches following the contour. Seed will be drilled on the contour to a depth of 0.5 inches, followed by cultipaction to compact the seed bed, preventing soil loss. Certified seed will be used with a minimum germination rate of 80% and minimum purity of 90%.
- B. Water bars, either for a producing well or a dry hole, will be constructed at least one(1) foot deep on the contour with approximately two(2) feet of drop per 100 feet of waterbed to ensure drainage and extend into established vegetation. All water bars will be constructed with berm on the downhill side to prevent erosion from occurring and sitting in the trench.

Water bar spacing on the location will be as follows:

<u>% Slope</u>	<u>Spacing Interval</u>
2 or <	200'
2 to 4	100'
4 or 5	75'
5 or >	50'

- C. Notice of Intent to Abandon and Subsequent Report of Abandonment will be submitted for approval.

t. Surface Ownership and ROW Ownership:

Surface Ownership: U.S. Department of Interior, Bureau of Land Management

ROW Ownership: U.S. Department of Interior, Bureau of Land Management

u. Other:

- A. Cultural Resource Inventory: A Class III Cultural Resource Inventory has been conducted by Mike Piontkowski of Uncompahgre Archaeological Consultants.

The survey finding was that no cultural resources were found on or near the location.

- B. Surface use of Area: Surface use of area is for grazing livestock and production of oil & gas.
- C. Fire Suppression: Operator will be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors, or subcontractors.

- D. Hazmat: Operator maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used during the course of construction, drilling, completion and production operations for this project. Hazardous materials (substances) which may be transported across these lands may include drilling mud, cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or Combustible products and acids/gels (corrosives).

The opportunity for Superfund Amendments and Reauthorization ACT (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

u. Operators Representative and Address and a Certification:

J. N. Burkhalter
Consulting Engineer/Agent for
Crescendo Energy, LLC
P.O. Box 60095
Grand Junction, CO 81506
Office: 970-243-6060; Cell: 970-260-0765

CERTIFICATION: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

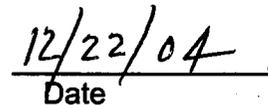
Crescendo Energy, LLC is considered to be the operator of the subject well. Crescendo Energy, LLC agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Utah Statewide Bond No. 0437483.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Operator, its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

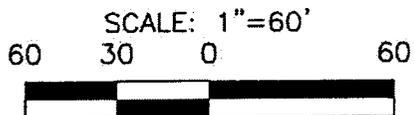
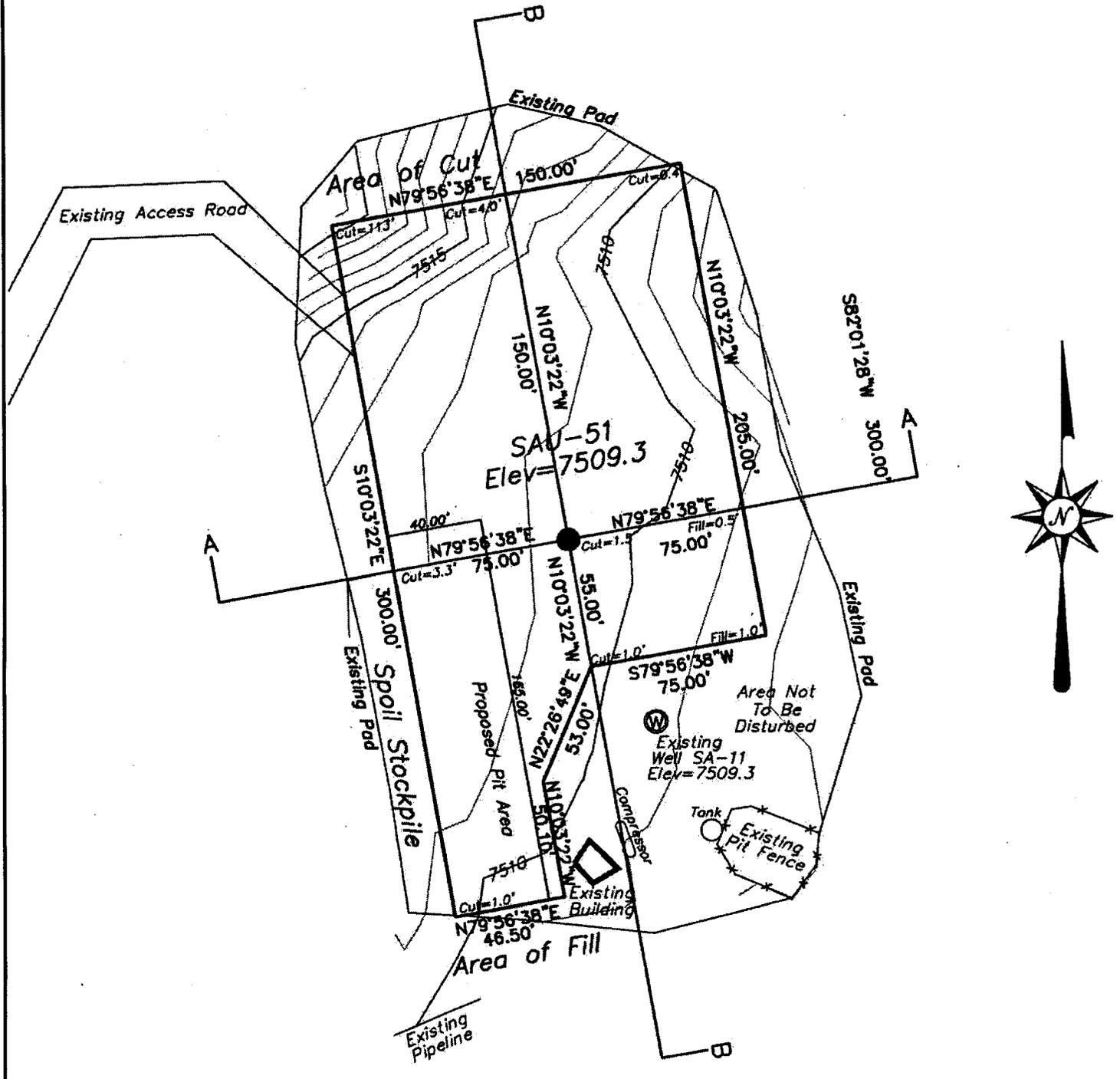

J. N. Burkhalter


Date

4. Plats/Maps Provided:

- a. Plat 1: Certified Location Plat
- b. Plat 2: Pit and Pad Layout
- c. Plat 3: Pit & Pad Cross Section
- d. Plat 4: Rig Layout
- e. Platt 5: Topo & Access
- f. Road Map
- g. One Mile Radius Map
- h. Schematic of BOPE
- i. Directional Drilling Plan from Scientific Drilling (4 pages).

PAD & PIT LAYOUT - PLAT 2 OF PARCEL LOCATED IN SECTION 15, T16S, R25E, SLBM (SAN ARROYO UNIT 51)



PAD & PIT LAYOUT - PLAT 2

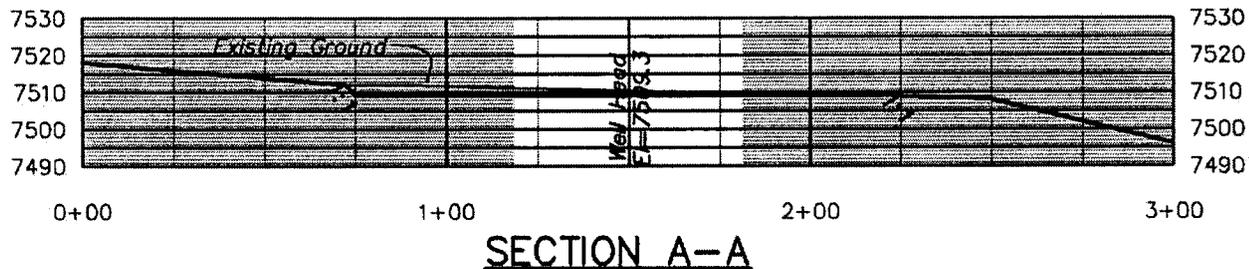
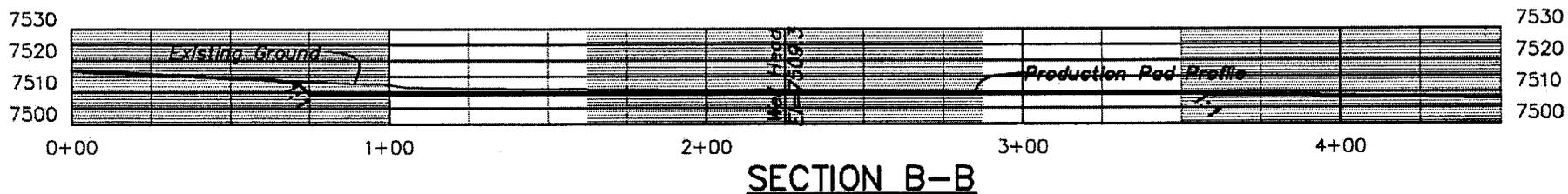
SECTION 15
T16S, R25E, SLBM
GRAND COUNTY, UTAH

LANDesign

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244 NORTH 7th STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PROJ. NO. 2004-82	SURVEYED	DRAWN	CHECKED	SHEET	OF
DATE: Nov., 2004		RSK	PRG	1	1

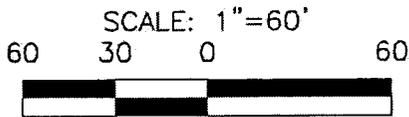
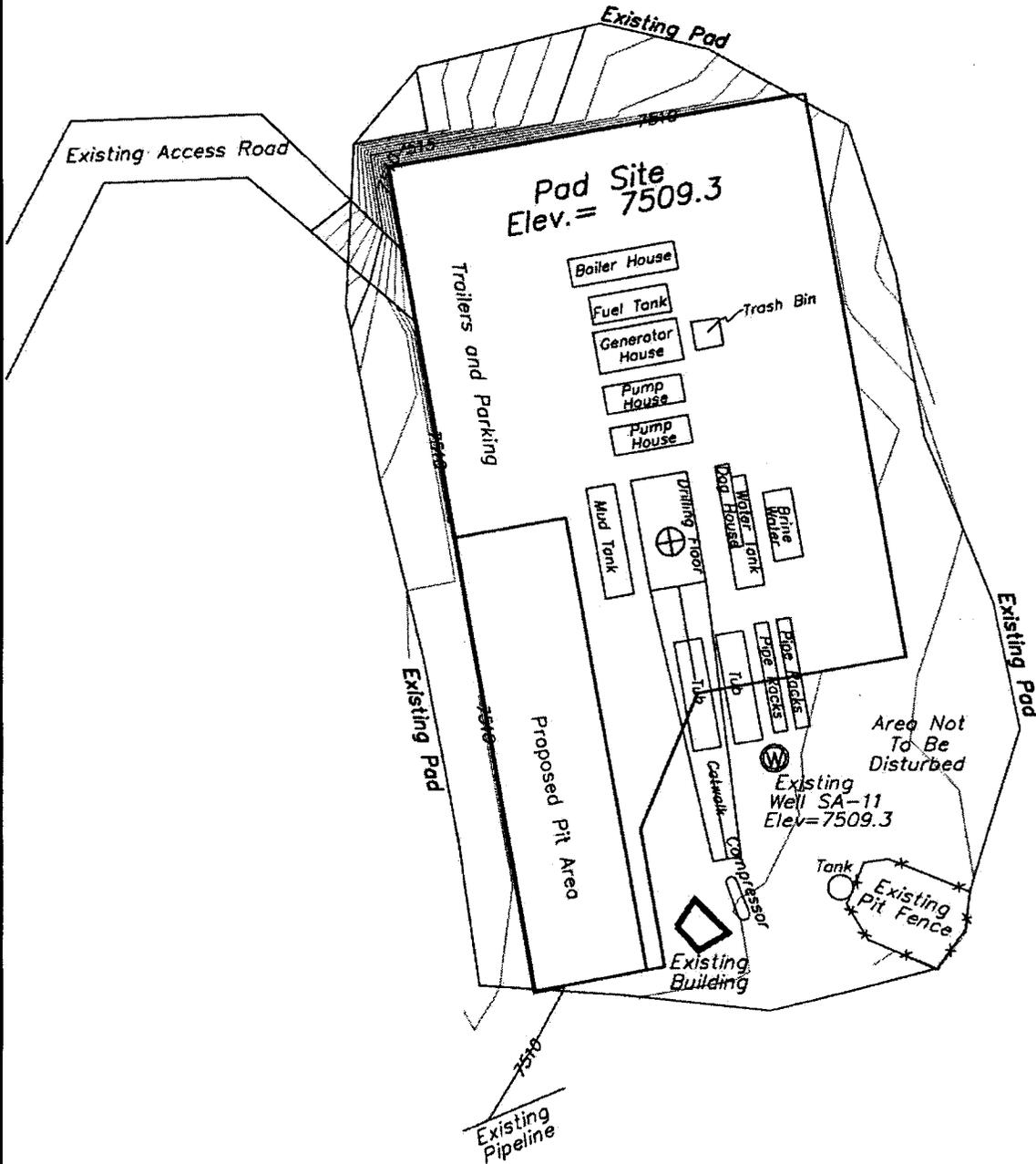
PAD & PIT CROSS SECTION - PLAT 3
OF PARCEL LOCATED IN
SECTION 15, T16S, R25E, SLBM
(SAN ARROYO UNIT 51)



SCALE: 1"=50' H
 SCALE: 1"=50' V

PAD & PIT CROSS SECTION PLAT 3					
SECTION 15 T16S, R25E, SLBM GRAND COUNTY, UTAH					
 ENGINEERS • SURVEYORS • PLANNERS 244 NORTH 7th STREET GRAND JUNCTION, COLORADO 81501 (970) 245-4099					
PROJ. NO. 2004-82	SURVEYED	DRAWN	CHECKED	SHEET	OF
DATE: Nov., 2004		RSK	PRC	1	1

**RIG LAYOUT - PLAT 4
OF PARCEL LOCATED IN
SECTION 15, T16S, R25E, SLBM
(SAN ARROYO UNIT 51)**



Ground Level = 7509.3
 Drilling Floor = 7522.3
 Kelley Bushing = 7523.3

RIG LAYOUT - PLAT 4
 SECTION 15
 T16S, R25E, SLBM
 GRAND COUNTY, UTAH

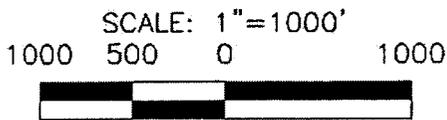
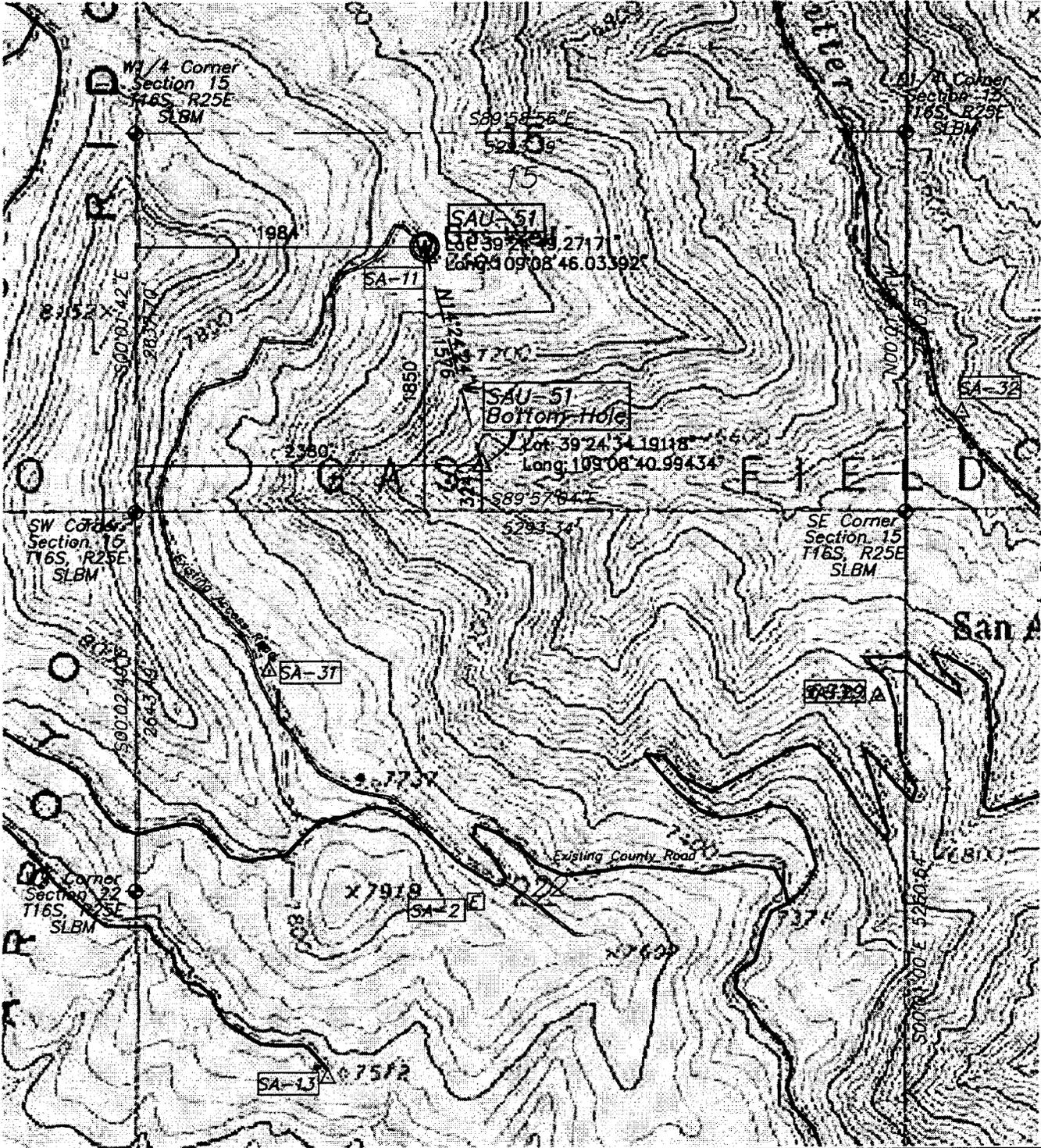
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 GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PROJ. NO. 2004-82	SURVEYED	DRAWN	CHECKED	SHEET	OF
DATE: Nov., 2004		RSK	PRG	1	1

TOPOGRAPHY & ACCESS EXHIBIT - PLAT 5

OF PARCEL LOCATED IN SECTION 15, T16S, R25E, SLBM (SAN ARROYO UNIT 51)



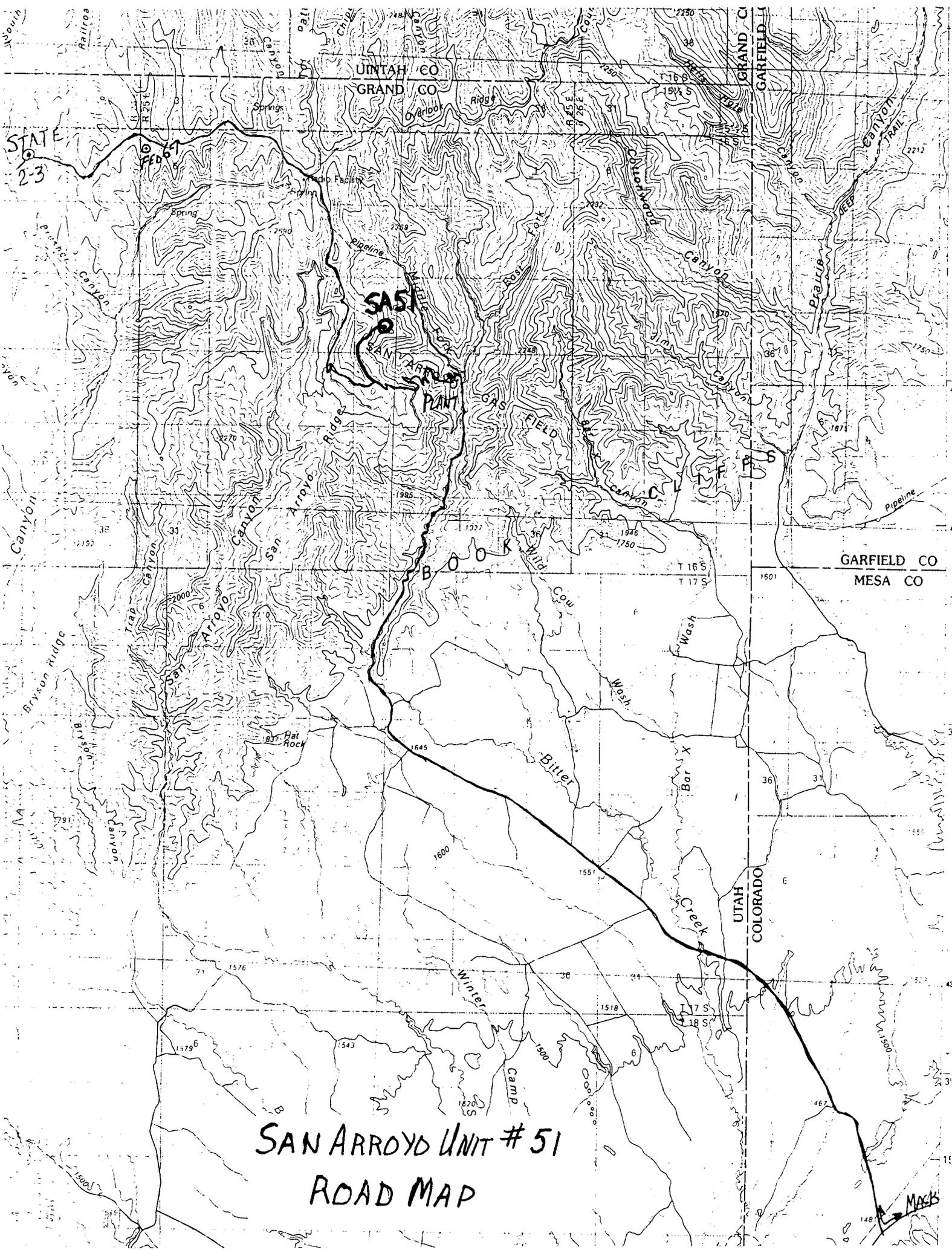
**TOPOGRAPHY & ACCESS
EXHIBIT - PLAT 5**

SECTION 15
T16S, R25E, SLBM
GRAND COUNTY, UTAH

LANDesign

ENGINEERS • SURVEYORS • PLANNERS
244 NORTH 7th STREET
GRAND JUNCTION, COLORADO 81501 (970) 245-4099

PROJ. NO. 2004-82	SURVEYED	DRAWN	CHECKED	SHEET	OF
DATE: Nov., 2004		RSK	PRG	1	1



STATE
2-3

UNTAH CO
GRAND CO

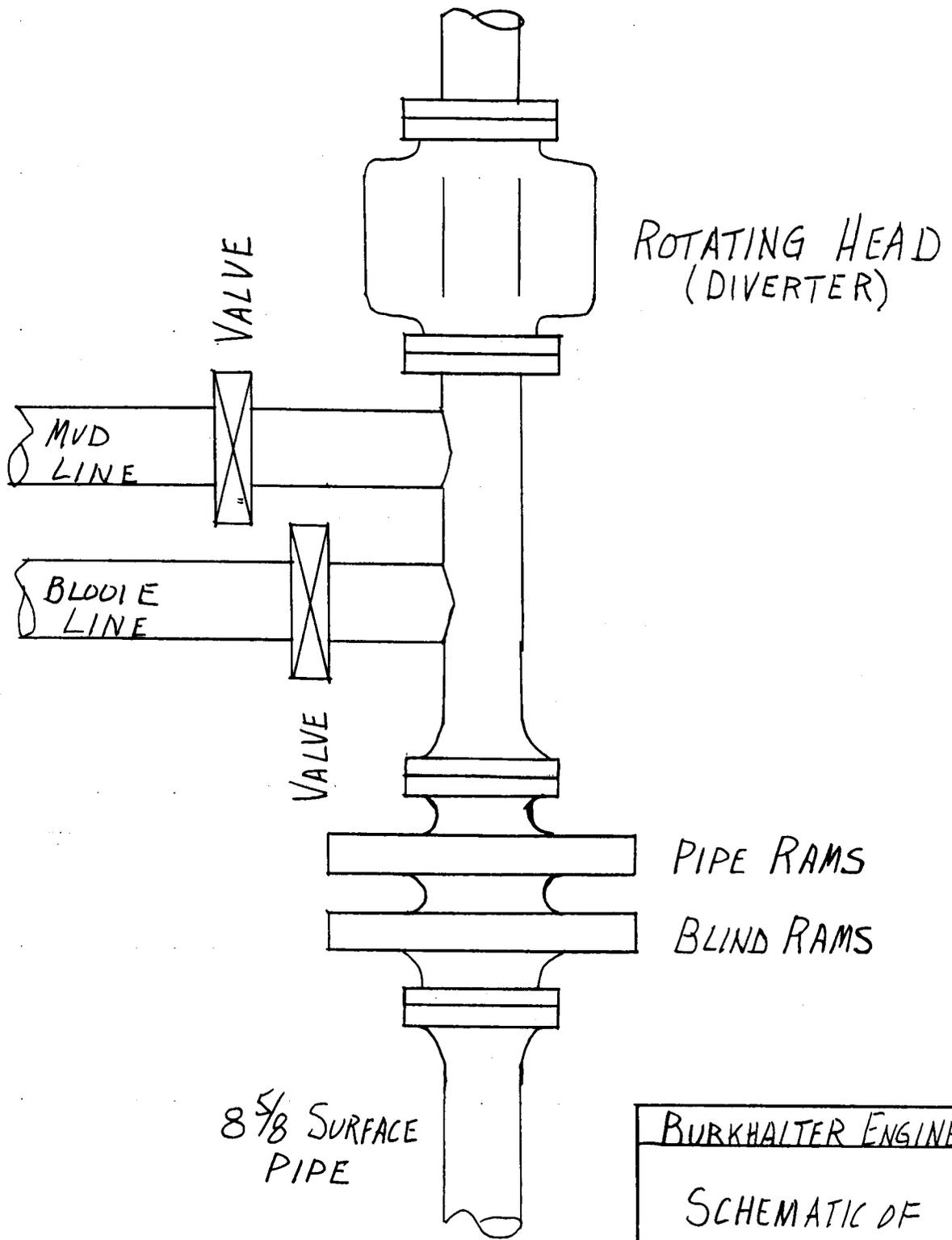
GRAND C
GARFIELD

GARFIELD CO
MESA CO

UTAH
COLORADO

SAN ARROYO UNIT #51
ROAD MAP

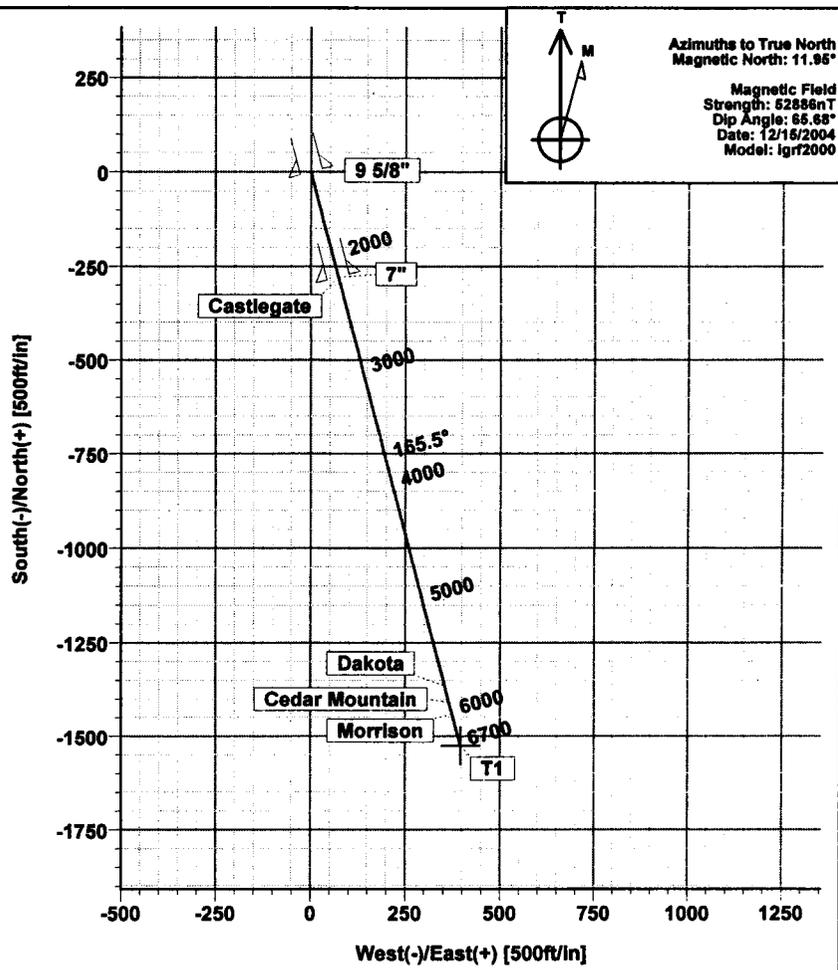
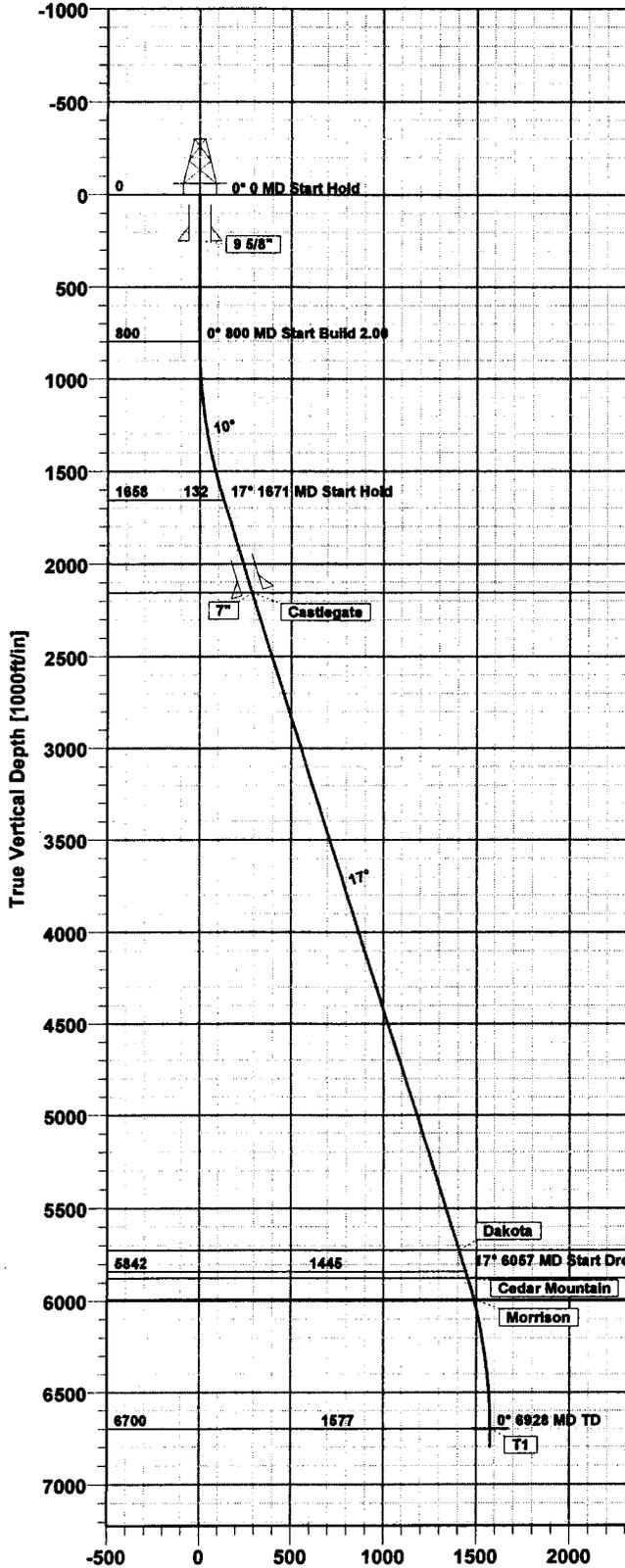
MAGS



SAN ARROYO UNIT # 51

BURKHALTER ENGINEERING, INC

SCHEMATIC OF 9"
STANDARD 3000 LB
BOP STACK



WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#51	0.00	0.00	402217.31	2664968.90	39°24'49.000N	109°08'48.000W	N/A

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2154.00	2191.24	Castlegate
2	5728.00	5937.23	Dakota
3	5876.00	6092.29	Cedar Mountain
4	5993.00	6213.71	Morrison

FIELD DETAILS	
Grand County, UT	
Geodetic System: US State Plane Coordinate System 1927	
Ellipsoid: NAD27 (Clarke 1866)	
Zone: Utah, Central Zone	
Magnetic Model: Igr2000	
System Datum: Mean Sea Level	
Local North: True North	

CASING DETAILS				
No.	TVD	MD	Name	Size
1	250.00	250.00	9 5/8"	9.625
2	2154.00	2191.24	7"	7.000

TARGET DETAILS				
Name	TVD	+N/-S	+E/-W	Shape
T1	6700.00	-1526.00	396.00	Point

SITE DETAILS	
San Arroyo Unit #51	
SHL SEC.15,T16S,R25E 1850'FSL & 1984'FWL	
PBHL 324'FSL & 2380'FWL	
Ground Level: 7510.00	
Positional Uncertainty: 0.00	
Convergence: 1.51	
Plan: Plan #2 (#51/OH)	

Vertical Section at 165.45° [1000ft/in]

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	165.45	0.00	0.00	0.00	0.00	0.00	0.00	
2	800.00	0.00	165.45	800.00	0.00	0.00	0.00	0.00	0.00	
3	1671.47	17.43	165.45	1658.09	-127.31	33.04	2.00	165.45	131.53	
4	6056.63	17.43	165.45	5841.91	-1398.69	362.96	0.00	1445.01	1445.01	
5	6928.09	0.00	165.45	6700.00	-1526.00	396.00	2.00	180.00	1576.54	T1

Created By: Summer Whitehouse	Date: 12/21/2004
Checked: _____	Date: _____
Reviewed: _____	Date: _____
Approved: _____	Date: _____



Scientific Drilling Planning Report

Company: Burkhalter Engineering, Inc.	Date: 12/21/2004	Time: 09:09:29	Page: 1
Field: Grand County, UT	Co-ordinate(NE) Reference: Site: San Arroyo Unit #51, True North		
Site: San Arroyo Unit #51	Vertical (TVD) Reference: GL 7510.0		
Well: #51	Section (VS) Reference: Well (0.00N,0.00E,165.45Azi)		
Wellpath: OH	Plan: Plan #2		

Field: Grand County, UT

Map System: US State Plane Coordinate System 1927	Map Zone: Utah, Central Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Site Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: igrf2000

Site: San Arroyo Unit #51
SHL SEC.15,T16S,R25E 1850'FSL & 1984'FWL
PBHL 324'FSL & 2380'FWL

Site Position:	Northing:	ft	Latitude:	
From: Lease Line	Easting:	ft	Longitude:	
Position Uncertainty: 0.00 ft			North Reference: True	
Ground Level: 7510.00 ft			Grid Convergence: 1.51 deg	

Well: #51	Slot Name:
Well Position: +N/-S 0.00 ft	Northing: 402217.31 ft
+E/-W 0.00 ft	Easting: 2664969.90 ft
Position Uncertainty: 0.00 ft	Latitude: 39 24 49.000 N
	Longitude: 109 8 46.000 W

Wellpath: OH	Drilled From: Surface
Current Datum: GL	Tie-on Depth: 0.00 ft
Magnetic Data: 12/15/2004	Above System Datum: Mean Sea Level
Field Strength: 52886 nT	Declination: 11.95 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 65.68 deg
ft	+N/-S
	ft
0.00	0.00
	0.00
	0.00
	165.45

Plan: Plan #2	Date Composed: 12/21/2004
Principal: No	Version: 1
	Tied-to: From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	165.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	165.45	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1671.47	17.43	165.45	1658.09	-127.31	33.04	2.00	2.00	0.00	165.45	
6056.63	17.43	165.45	5841.91	-1398.69	362.96	0.00	0.00	0.00	0.00	
6928.09	0.00	165.45	6700.00	-1526.00	396.00	2.00	-2.00	0.00	180.00	T1

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	165.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	165.45	800.00	0.00	0.00	0.00	0.00	0.00	0.00	165.45

Section 2 : Start Build 2.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
900.00	2.00	165.45	899.98	-1.69	0.44	1.75	2.00	2.00	0.00	0.00
1000.00	4.00	165.45	999.84	-6.75	1.75	6.98	2.00	2.00	0.00	0.00
1100.00	6.00	165.45	1099.45	-15.19	3.94	15.69	2.00	2.00	0.00	0.00
1200.00	8.00	165.45	1198.70	-26.99	7.00	27.88	2.00	2.00	0.00	0.00
1300.00	10.00	165.45	1297.47	-42.13	10.93	43.52	2.00	2.00	0.00	0.00
1400.00	12.00	165.45	1395.62	-60.60	15.72	62.60	2.00	2.00	0.00	0.00
1500.00	14.00	165.45	1493.06	-82.37	21.37	85.10	2.00	2.00	0.00	0.00
1600.00	16.00	165.45	1589.64	-107.42	27.88	110.98	2.00	2.00	0.00	0.00
1671.47	17.43	165.45	1658.09	-127.31	33.04	131.53	2.00	2.00	0.00	0.00



Scientific Drilling Planning Report

Company: Burkhalter Engineering, Inc.
Field: Grand County, UT
Site: San Arroyo Unit #51
Well: #51
Wellpath: OH

Date: 12/21/2004 **Time:** 09:09:29 **Page:** 2
Co-ordinate(N/E) Reference: Site: San Arroyo Unit #51, True North
Vertical (TVD) Reference: GL 7510.0
Section (VS) Reference: Well (0.00N,0.00E,165.45Azi)
Plan: Plan #2

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1700.00	17.43	165.45	1685.31	-135.59	35.18	140.08	0.00	0.00	0.00	0.00
1800.00	17.43	165.45	1780.72	-164.58	42.71	170.03	0.00	0.00	0.00	0.00
1900.00	17.43	165.45	1876.13	-193.57	50.23	199.98	0.00	0.00	0.00	0.00
2000.00	17.43	165.45	1971.54	-222.56	57.76	229.94	0.00	0.00	0.00	0.00
2100.00	17.43	165.45	2066.95	-251.56	65.28	259.89	0.00	0.00	0.00	0.00
2191.24	17.43	165.45	2154.00	-278.01	72.14	287.22	0.00	0.00	0.00	0.00
2200.00	17.43	165.45	2162.36	-280.55	72.80	289.84	0.00	0.00	0.00	0.00
2300.00	17.43	165.45	2257.76	-309.54	80.33	319.79	0.00	0.00	0.00	0.00
2400.00	17.43	165.45	2353.17	-338.53	87.85	349.75	0.00	0.00	0.00	0.00
2500.00	17.43	165.45	2448.58	-367.53	95.37	379.70	0.00	0.00	0.00	0.00
2600.00	17.43	165.45	2543.99	-396.52	102.90	409.65	0.00	0.00	0.00	0.00
2700.00	17.43	165.45	2639.40	-425.51	110.42	439.61	0.00	0.00	0.00	0.00
2800.00	17.43	165.45	2734.81	-454.51	117.94	469.56	0.00	0.00	0.00	0.00
2900.00	17.43	165.45	2830.22	-483.50	125.47	499.51	0.00	0.00	0.00	0.00
3000.00	17.43	165.45	2925.62	-512.49	132.99	529.47	0.00	0.00	0.00	0.00
3100.00	17.43	165.45	3021.03	-541.48	140.52	559.42	0.00	0.00	0.00	0.00
3200.00	17.43	165.45	3116.44	-570.48	148.04	589.37	0.00	0.00	0.00	0.00
3300.00	17.43	165.45	3211.85	-599.47	155.56	619.32	0.00	0.00	0.00	0.00
3400.00	17.43	165.45	3307.26	-628.46	163.09	649.28	0.00	0.00	0.00	0.00
3500.00	17.43	165.45	3402.67	-657.45	170.61	679.23	0.00	0.00	0.00	0.00
3600.00	17.43	165.45	3498.08	-686.45	178.13	709.18	0.00	0.00	0.00	0.00
3700.00	17.43	165.45	3593.49	-715.44	185.66	739.14	0.00	0.00	0.00	0.00
3800.00	17.43	165.45	3688.89	-744.43	193.18	769.09	0.00	0.00	0.00	0.00
3900.00	17.43	165.45	3784.30	-773.42	200.71	799.04	0.00	0.00	0.00	0.00
4000.00	17.43	165.45	3879.71	-802.42	208.23	828.99	0.00	0.00	0.00	0.00
4100.00	17.43	165.45	3975.12	-831.41	215.75	858.95	0.00	0.00	0.00	0.00
4200.00	17.43	165.45	4070.53	-860.40	223.28	888.90	0.00	0.00	0.00	0.00
4300.00	17.43	165.45	4165.94	-889.39	230.80	918.85	0.00	0.00	0.00	0.00
4400.00	17.43	165.45	4261.35	-918.39	238.32	948.81	0.00	0.00	0.00	0.00
4500.00	17.43	165.45	4356.76	-947.38	245.85	978.76	0.00	0.00	0.00	0.00
4600.00	17.43	165.45	4452.16	-976.37	253.37	1008.71	0.00	0.00	0.00	0.00
4700.00	17.43	165.45	4547.57	-1005.36	260.89	1038.66	0.00	0.00	0.00	0.00
4800.00	17.43	165.45	4642.98	-1034.36	268.42	1068.62	0.00	0.00	0.00	0.00
4900.00	17.43	165.45	4738.39	-1063.35	275.94	1098.57	0.00	0.00	0.00	0.00
5000.00	17.43	165.45	4833.80	-1092.34	283.47	1128.52	0.00	0.00	0.00	0.00
5100.00	17.43	165.45	4929.21	-1121.34	290.99	1158.48	0.00	0.00	0.00	0.00
5200.00	17.43	165.45	5024.62	-1150.33	298.51	1188.43	0.00	0.00	0.00	0.00
5300.00	17.43	165.45	5120.03	-1179.32	306.04	1218.38	0.00	0.00	0.00	0.00
5400.00	17.43	165.45	5215.43	-1208.31	313.56	1248.34	0.00	0.00	0.00	0.00
5500.00	17.43	165.45	5310.84	-1237.31	321.08	1278.29	0.00	0.00	0.00	0.00
5600.00	17.43	165.45	5406.25	-1266.30	328.61	1308.24	0.00	0.00	0.00	0.00
5700.00	17.43	165.45	5501.66	-1295.29	336.13	1338.19	0.00	0.00	0.00	0.00
5800.00	17.43	165.45	5597.07	-1324.28	343.65	1368.15	0.00	0.00	0.00	0.00
5900.00	17.43	165.45	5692.48	-1353.28	351.18	1398.10	0.00	0.00	0.00	0.00
5937.23	17.43	165.45	5728.00	-1364.07	353.98	1409.25	0.00	0.00	0.00	0.00
6000.00	17.43	165.45	5787.89	-1382.27	358.70	1428.05	0.00	0.00	0.00	0.00
6056.63	17.43	165.45	5841.91	-1398.69	362.96	1445.01	0.00	0.00	0.00	0.00

Section 4 : Start Drop -2.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6092.29	16.72	165.45	5876.00	-1408.82	365.59	1455.48	2.00	-2.00	0.00	180.00
6100.00	16.56	165.45	5883.39	-1410.96	366.15	1457.69	2.00	-2.00	0.00	-180.00
6200.00	14.56	165.45	5979.72	-1436.92	372.88	1484.52	2.00	-2.00	0.00	180.00
6213.71	14.29	165.45	5993.00	-1440.23	373.74	1487.93	2.00	-2.00	0.00	180.00
6300.00	12.56	165.45	6076.93	-1459.62	378.77	1507.97	2.00	-2.00	0.00	-180.00
6400.00	10.56	165.45	6174.89	-1479.02	383.81	1528.01	2.00	-2.00	0.00	180.00
6500.00	8.56	165.45	6273.50	-1495.10	387.98	1544.62	2.00	-2.00	0.00	180.00
6600.00	6.56	165.45	6372.62	-1507.83	391.29	1557.78	2.00	-2.00	0.00	180.00
6700.00	4.56	165.45	6472.15	-1517.22	393.72	1567.47	2.00	-2.00	0.00	180.00
6800.00	2.56	165.45	6571.95	-1523.23	395.28	1573.68	2.00	-2.00	0.00	180.00
6900.00	0.56	165.45	6671.91	-1525.87	395.97	1576.41	2.00	-2.00	0.00	180.00
6928.09	0.00	165.45	6700.00	-1526.00	396.00	1576.54	2.00	-2.00	0.00	-180.00



Scientific Drilling Planning Report

Company: Burkhalter Engineering, Inc.
Field: Grand County, UT
Site: San Arroyo Unit #51
Well: #51
Wellpath: OH

Date: 12/21/2004 **Time:** 09:09:29 **Page:** 3
Co-ordinate(NE) Reference: Site: San Arroyo Unit #51, True North
Vertical (TVD) Reference: GL 7510.0
Section (VS) Reference: Well (0.00N,0.00E,165.45Azi)
Plan: Plan #2

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →			← Longitude →				
								Deg	Min	Sec	Deg	Min	Sec		
T1			6700.00	-1526.00	396.00	400702.26	2665405.92	39	24	33.917	N	109	8	40.954	W
-Plan hit target															

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
250.00	250.00	9.625	12.250	9 5/8"
2191.24	2154.00	7.000	8.750	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
2191.24	2154.00	Castlegate		0.00	0.00
5937.23	5728.00	Dakota		0.00	0.00
6092.29	5876.00	Cedar Mountain		0.00	0.00
6213.71	5993.00	Morrison		0.00	0.00

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/28/2004

API NO. ASSIGNED: 43-019-31425

WELL NAME: SAN ARROYO U #51

OPERATOR: CRESCENDO ENERGY LLC (N1365)

CONTACT: J.N. BURKHALTER

PHONE NUMBER: 432-697-7221

PROPOSED LOCATION:

NESW 15 160S 250E
SURFACE: 1850 FSL 1984 FWL
BOTTOM: 0324 FSL 2380 FWL *SESU*
GRAND
SAN ARROYO (250)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-05059-C

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: MRSN

COALBED METHANE WELL? NO

LATITUDE: 39.41368

LONGITUDE: -109.1455

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]
(No. 0437483)
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. B004)
- RDCC Review (Y/N)
(Date: _____)
- Fee Surf Agreement (Y/N)

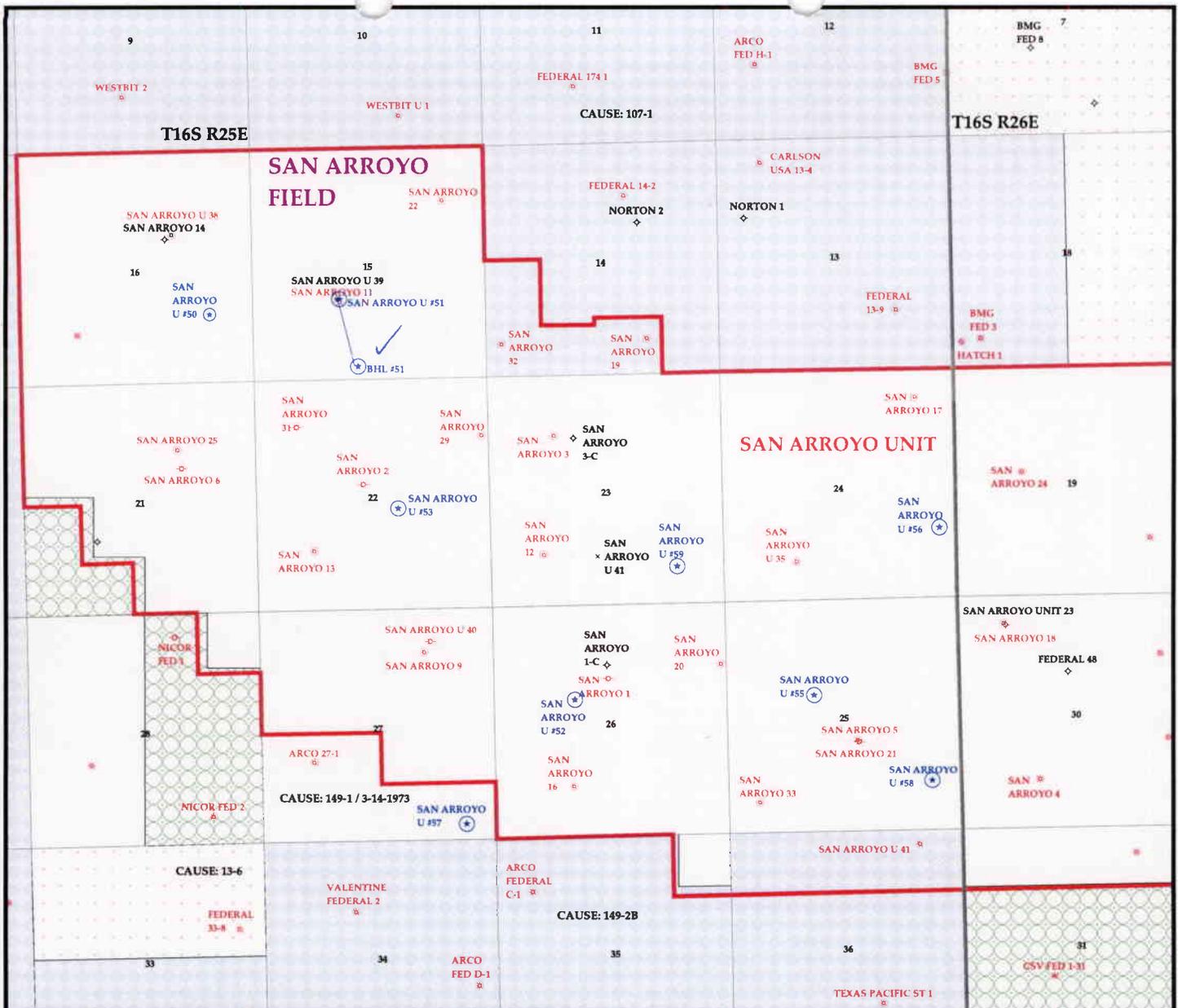
LOCATION AND SITING:

- ____ R649-2-3.
- Unit SAN ARROYO
- ____ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
- ____ R649-3-3. Exception
- ____ Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____
- R649-3-11. Directional Drill

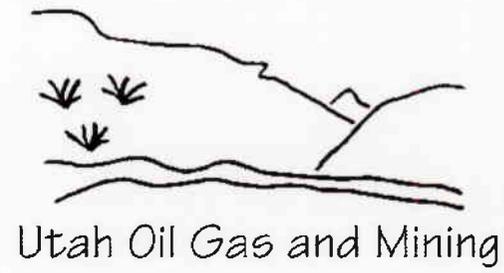
COMMENTS: _____

STIPULATIONS: _____

*1- Geologic Map proof
2- Spacing Map*



OPERATOR: CRESENDO ENERGY LLC (N1365)
SEC. 15 T.16S R.25E
FIELD: SAN ARROYO (250)
COUNTY: GRAND
SPACING: R649-3-11 / DIRECTIONAL DRILLING



Wells	Units.shp	Fields.shp
⊕ GAS INJECTION	□ EXPLORATORY	□ ABANDONED
⊙ GAS STORAGE	□ GAS STORAGE	□ ACTIVE
⊗ LOCATION ABANDONED	□ NF PP OIL	□ COMBINED
⊕ NEW LOCATION	□ NF SECONDARY	□ INACTIVE
⊖ PLUGGED & ABANDONED	□ PENDING	□ PROPOSED
⊕ PRODUCING GAS	□ PI OIL	□ STORAGE
⊕ PRODUCING OIL	□ PP GAS	□ TERMINATED
⊖ SHUT-IN GAS	□ PP GEOTHERML	
⊖ SHUT-IN OIL	□ PP OIL	
⊗ TEMP. ABANDONED	□ SECONDARY	
⊕ TEST WELL	□ TERMINATED	
⊕ WATER INJECTION		
⊕ WATER SUPPLY		
⊕ WATER DISPOSAL		



PREPARED BY: DIANA WHITNEY
 DATE: 29-DECEMBER-2004

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

December 30, 2004

Memorandum

To: Assistant District Manager Minerals, Moab District
 From: Michael Coulthard, Petroleum Engineer
 Subject: 2004 Plan of Development San Arroyo Unit,
 Grand County, Utah.

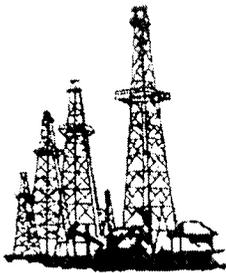
Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2004 within the San Arroyo Unit, Grand County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Morrison)		
43-019-31425	San Arroyo Unit # 51	Sec 15 T16S R25E 1850 FSL 1984 FWL
	BHL	Sec 15 T16S R25E 0324 FSL 2380 FWL
43-019-31426	San Arroyo Unit # 53	Sec 22 T16S R25E 2296 FSL 2061 FEL
43-019-31428	San Arroyo Unit # 56	Sec 24 T16S R25E 1605 FSL 0377 FEL
43-019-31429	San Arroyo Unit # 58	Sec 25 T16S R25E 1093 FSL 0659 FEL
43-019-31430	San Arroyo Unit # 55	Sec 25 T16S R25E 2192 FNL 1984 FWL
43-019-31431	San Arroyo Unit # 52	Sec 26 T16S R25E 2179 FNL 1850 FWL
43-019-31433	San Arroyo Unit # 54	Sec 19 T16S R26E 0651 FSL 1383 FWL
(Proposed PZ Entrada)		
43-019-31427	San Arroyo Unit # 59	Sec 23 T16S R25E 0819 FSL 1047 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

002



*Petroleum and Energy Consultants
Registered in Rocky Mountain States
Oil & Gas Production*

BURKHALTER ENGINEERING, INC.

751 Horizon Ct., Suite 245
P.O. Box 60095
Grand Junction, Co 81506
Telephone (970) 243-6060
Fax (970) 243-6015
Mobile (970) 260-0765

December 29, 2004

Ms. Diana Whitney
Division of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, UT 84114-5801

RECEIVED

JAN 04 2005

DIV. OF OIL, GAS & MINING

Re: APD
San Arroyo Unit #51 (Directional)
Grand County, UT

Dear Ms. Whitney:

As you requested, I am writing to comply with Rule R649-3-11. I am enclosing extra copies of the APD cover page and the surveyor's plat for your convenience. Additionally, I enclose a sketch of Sections 15 and 22, T16S, R25E with the relevant Leases depicted thereon to show that the 460 foot rule does not apply to this location – all the surrounding Leases are owned by Crescendo Energy, LLC.

The well is applied for as Directional because of terrain. It would be virtually impossible to build a location above the desired BHL.

I believe the enclosed APD cover sheet includes all the items listed under R649-3-11.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. N. Burkhalter".

J. N. Burkhalter, PE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

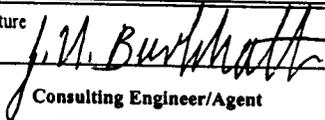
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No. UTU-05059-C	
6. If Indian, Allottee or Tribe Name -----	
7. If Unit or CA Agreement, Name and No San Arroyo Unit	
8. Lease Name and Well No San Arroyo Unit #51	
9. API Well No.	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory San Arroyo
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	11. Sec., T. R. M. or Blk. and Survey or Area Sec 15, T16S, R25E, SLM
2. Name of Operator Crescendo Energy, LLC	
3a. Address P.O. Box 1814, Midland, TX 79702	3b. Phone No. (include area code) 432-697-7221
12. County or Parish Grand	
13. State UT	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1850 FSL, 1984 FWL At proposed prod. zone 324 FSL, 2380 FWL	
14. Distance in miles and direction from nearest town or post office* Approx 30 mi NW of Mack, CO	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 267	16. No. of acres in lease 120
17. Spacing Unit dedicated to this well San Arroyo Unit	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. No Wells
19. Proposed Depth 6700 TVD, 6921 MD	20. BLM/BIA Bond No. on file BLM Bond 0437483
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7510 Grnd	22. Approximate date work will start* 05/01/2005
23. Estimated duration 4 to 5 weeks	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) J. N. Burkhalter	Date 12/22/04
Title Consulting Engineer/Agent		

Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)



State of Utah

Department of
Natural Resources

ROBERT L. MORGAN
Executive Director

Division of
Oil, Gas & Mining

MARY ANN WRIGHT
Acting Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

January 5, 2005

Crescendo Energy, LLC
P O Box 1814
Midland, TX 79702

Re: San Arroyo Unit #51 Well, Surface Location 1850' FSL, 1984' FWL, NE SW, Sec. 15, T. 16 South, R. 25 East, Bottom Location 324' FSL, 2380' FWL, SE SW, Sec. 15, T. 16 South, R. 25 East, Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31425.

Sincerely,

John R. Baza
Associate Director

pab
Enclosures

cc: Grand County Assessor
Bureau of Land Management, Moab District Office

Operator: Crescendo Energy, LLC
Well Name & Number San Arroyo Unit #51
API Number: 43-019-31425
Lease: UTU-05059-C

Surface Location: NE SW **Sec.** 15 **T.** 16 South **R.** 25 East
Bottom Location: SE SW **Sec.** 15 **T.** 16 South **R.** 25 East

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
See attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
San Arroyo Unit and other wells

8. WELL NAME and NUMBER:
See attached

9. API NUMBER:
See attach

10. FIELD AND POOL, OR WILDCAT:
See attached

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

2. NAME OF OPERATOR:
Slate River Resources, LLC *N2725*

3. ADDRESS OF OPERATOR:
418 Main Street, Ste. 18 CITY **Vernal** STATE **UT** ZIP **84078**

PHONE NUMBER:
(435) 781-1870

4. LOCATION OF WELL

FOOTAGES AT SURFACE: **See attached schedule of wells** COUNTY: **Grand**

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: **UTAH**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Crescendo Energy, LLC is a wholly owned subsidiary of Slate River Resources, LLC. All the wells, properties and leasehold interest of Crescendo Energy, LLC has been assigned to Slate River Resources, LLC. We request a change of Operator from Crescendo Energy, LLC to Slate River Resources, LLC on the wells listed on the attached schedule, including a change of Operator of the San Arroyo Unit Area effective November 1, 2005.

The Bond numbers for Slate River Resources, LLC are:
 State of Utah DOGM Bond B001556 \$120,000
 State of Utah Bond of Lessee B001760 \$ 15,000 being transferred from Crescendo to Slate River Resources, LLC
 Federal Utah Statewide Bond UTB000187 \$ 25,000 being transferred from Crescendo to Slate River Resources, LLC

Crescendo Energy, LLC *N1365*

Carter G. Mathies

Carter G. Mathies, President

NAME (PLEASE PRINT) **Gary D. Davis** TITLE **President, Slate River Resources, LLC**

SIGNATURE *[Signature]* DATE **11/10/2005**

(This space for State use only)

APPROVED *11/29/05*
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

RECEIVED
NOV 16 2005

DIV. OF OIL, GAS & MINING

SLATE RIVER RESOURCES, LLC, OPERATOR

API Well Number	Operator	Well Name	Well Type	Well Status	Field Name	County Name	Qtr/Qtr	Section	Township-Range	Upland	FNL/
43-019-30570-00-0	CRESCENDO ENERGY LLC	ARCO 27-1	Gas Well	Producing	SAN ARROYO	GRAND	NWSW	27	16S-25E	U-29645	1700
43-019-31162-00-0	CRESCENDO ENERGY LLC	ARCO STATE 36-7	Gas Well	Producing	EAST CANYON	GRAND	SWSE	36	15.5S-24E	ML-22208	852
43-019-31192-00-0	CRESCENDO ENERGY LLC	ARCO STATE 36-8	Gas Well	Producing	EAST CANYON	GRAND	SWSW	36	15.5S-24E	ML-22208	1285
43-019-30240-00-0	CRESCENDO ENERGY LLC	ARCO-STATE 2-1	Gas Well	Producing	EAST CANYON	GRAND	NESE	2	16S-24E	ML-22208	2420
43-019-30241-00-0	CRESCENDO ENERGY LLC	ARCO-STATE 2-2	Gas Well	Shut-In	EAST CANYON	GRAND	NWNW	2	16S-24E	ML-22208	1425
43-019-30047-00-0	CRESCENDO ENERGY LLC	BITTER CREEK 1	Gas Well	Producing	SAN ARROYO	GRAND	SWSE	2	16S-25E	ML-25151	1080
43-047-30765-00-0	CRESCENDO ENERGY LLC	BLACK HORSE CANYON FED 31-1	Gas Well	Producing	BLACK HORSE CYN	UINTAH	NWSW	31	15S-24E	U-14234	2030
43-019-15884-00-0	CRESCENDO ENERGY LLC	FEDERAL 174 1	Gas Well	Producing	SAN ARROYO	GRAND	SESW	11	16S-25E	U-126528	1940
43-019-31432-00-0	CRESCENDO ENERGY LLC	FEDERAL 27-2	Gas Well	Approved permit (APD); not yet spudd	SAN ARROYO	GRAND	SESE	27	16S-25E	U-29645	1110
43-019-31318-00-0	CRESCENDO ENERGY LLC	FEDERAL 47	Gas Well	Producing	SAN ARROYO	GRAND	NWNE	31	16S-26E	U-6023	990
43-019-31410-00-0	CRESCENDO ENERGY LLC	FEDERAL 6-1	Gas Well	Approved permit (APD); not yet spudd	SAN ARROYO	GRAND	SWNW	6	16S-25E	U-9831	1760
43-019-11089-00-0	CRESCENDO ENERGY LLC	FEDERAL GILBERT 1	Gas Well	Producing	SAN ARROYO	GRAND	SWNE	11	16S-25E	U-126528	1140
43-019-16532-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 01	Gas Well	Shut-In	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15885-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 02	Gas Well	Shut-In	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15886-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 03	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15887-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 04	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15888-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 05	Gas Well	Shut-In	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15889-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 06	Gas Well	Shut-In	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15890-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 08	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15891-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 09	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15892-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 11	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15893-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 12	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15894-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 13	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15896-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 16	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15897-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 17	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15898-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 18	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15899-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 19	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15900-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 20	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15901-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 21	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15902-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 22	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15903-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 24	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15904-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 25	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15905-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 26	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15906-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 27	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15907-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 28	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15908-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 29	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-15909-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 30	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-30527-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 31	Gas Well	Shut-In	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-30528-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 32	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-30608-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 33	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-11090-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 35	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1140
43-019-31251-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 36-A	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31252-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 37	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31253-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 38	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31250-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 40	Gas Well	Shut-In	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31289-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 41	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31290-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 42	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31291-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 43	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31301-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 44	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31299-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 45	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Request to Transfer Application or Permit to Drill

(This form should accompany a Sundry Notice, Form 9, requesting APD transfer)

Well name:	San Arroyo Unit #51
API number:	4301931425
Location:	Qtr-Qtr: NESW Section: 15 Township: 16S Range: 25E
Company that filed original application:	Crescendo Energy, LLC
Date original permit was issued:	01/05/2005
Company that permit was issued to:	Crescendo Energy, LLC

Check one	Desired Action:
<input type="checkbox"/>	Transfer pending (unapproved) Application for Permit to Drill to new operator
	The undersigned as owner with legal rights to drill on the property, hereby verifies that the information as submitted in the pending Application for Permit to Drill, remains valid and does not require revision. The new owner of the application accepts and agrees to the information and procedures as stated in the application.
<input checked="" type="checkbox"/>	Transfer approved Application for Permit to Drill to new operator
	The undersigned as owner with legal rights to drill on the property as permitted, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.	Yes	No
If located on private land, has the ownership changed?		
<input type="checkbox"/> If so, has the surface agreement been updated?		
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?		✓
Have there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?		✓
Have there been any changes to the access route including ownership or right-of-way, which could affect the proposed location?		✓
Has the approved source of water for drilling changed?		✓
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?		✓
Is bonding still in place, which covers this proposed well? Bond No. <u>B001762</u>	✓	

Any desired or necessary changes to either a pending or approved Application for Permit to Drill that is being transferred, should be filed on a Sundry Notice, Form 9, or amended Application for Permit to Drill, Form 3, as appropriate, with necessary supporting information as required.

Name (please print) Bruce E. Johnston Title Vice President Land
 Signature  Date 11/23/2005
 Representing (company name) Slate River Resources, LLC

RECEIVED

NOV 25 2005

DIV. OF OIL, GAS & MINING

The person signing this form must have legal authority to represent the company or individual(s) to be listed as the new operator on the Application for Permit to Drill.

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: _____ not yet

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: _____ n/a

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: _____ n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: _____ n/a

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: _____ 11/29/2005
2. Changes have been entered on the Monthly Operator Change Spread Sheet on: _____ 11/29/2005
3. Bond information entered in RBDMS on: _____ 11/29/2005
4. Fee/State wells attached to bond in RBDMS on: _____ 11/29/2005
5. Injection Projects to new operator in RBDMS on: _____ n/a
6. Receipt of Acceptance of Drilling Procedures for APD/New on: _____ 11/29/2005

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: _____ UTB000187

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: _____ n/a

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number _____ B001556
2. The **FORMER** operator has requested a release of liability from their bond on: _____ 11/25/2005
The Division sent response by letter on: _____ n/a

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: _____ n/a

COMMENTS:



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>



4301931425
16S 25E 15

IN REPLY REFER TO:
3106
(UT-922)

December 5, 2005

Memorandum

To: Moab Field Office
From: Acting Chief, Branch of Fluid Minerals
Subject: Merger Approval

Attached is an approved copy of the merger recognized by the state of Delaware. We have updated our records to reflect the merger from Crescendo Energy LLC into Slate River Resources LLC. The merger was approved effective October 31, 2005.


for David H. Murphy
Acting Chief, Branch of
Fluid Minerals

Enclosure
Articles of Organization (4 pp)

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114
Teresa Thompson
Joe Incardine
Connie Seare
Dave Mascarenas
Susan Bauman

RECEIVED

DEC 05 2005

DIV. OF OIL, GAS & MINING

ER

LLE: Judy Nordstrom

MEMO WRITTEN: December 5, 2005

Name of Company:

OLD

NEW NID

Crescendo Energy LLC
418 E. Main Street
Suite 18
Vernal Utah 84078

Slate River Resources LLC
1600 Broadway
Suite 900
Denver CO 80202

_____ (940) NAME CHANGE RECOGNIZED
(DATE)

October 31, 2005 (817) CORPORATE MERGER RECOGNIZED
(DATE)

UTSL-071307

- UTU-0369
- UTU-0370A
- UTU-05011A
- UTU-05011B
- UTU-05059A
- UTU-05059C
- UTU-05059F
- UTU-05650
- UTU-05650A
- UTU-06021
- UTU-06023
- UTU-06188
- UTU-06188B
- UTU-025243
- UTU-025245
- UTU-025243A
- UTU-025297
- UTU-0126528
- UTU-0136529
- UTU-0141420
- UTU-9831
- UTU-14234
- UTU-29645
- UTU-60818
- UTU-63022A

CERTIFICATE OF MERGER
of
CRESCENDO ENERGY, LLC
into
SLATE RIVER RESOURCES, LLC

This **CERTIFICATE OF MERGER**, dated and effective as of October 31, 2005, has been duly authorized and is filed pursuant to Section 18-209 of the Delaware Limited Liability Company Act (the "Act").

1. The name and jurisdiction of formation or organization of the constituent entities of the merger effectuated hereby are:

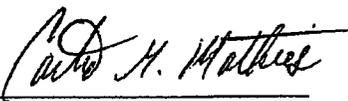
<u>Name</u>	<u>Jurisdiction of Organization</u>
Slate River Resources, LLC	Delaware
Crescendo Energy, LLC	Delaware

2. An Agreement and Plan of Merger (the "Merger Agreement") has been duly authorized, approved and executed by each of the limited liability companies to merge pursuant hereto.
3. Slate River Resources, LLC shall be the surviving entity and shall maintain its present name.
4. There are no amendments to the certificate of formation of Slate River Resources, LLC resulting from or incidental to the merger.
5. The merger effected hereby shall be effective upon the filing of this Certificate of Merger in the office of the Secretary of State of the State of Delaware.
6. The Merger Agreement is on file in the principal business office of the surviving entity, Slate River Resources, LLC, which is located at 1600 Broadway, Suite 900, Denver, Colorado 80202.
7. The Merger Agreement will be furnished by Slate River Resources, LLC, or its authorized representative, free of cost, to any member of, or any person holding an interest in, any entity to be merged pursuant hereto.

IN WITNESS WHEREOF, Slate River Resources, LLC, the surviving entity, has caused this Certificate of Merger to be executed by an authorized officer as of the date first written above.

SLATE RIVER RESOURCES, LLC

By:


Carter G. Mathies
Chief Executive Officer

**SLATE RIVER HOLDINGS, LLC
UNANIMOUS WRITTEN CONSENT OF
THE BOARD OF DIRECTORS
IN LIEU OF A SPECIAL MEETING**

The undersigned, being all of the Members of the Board of Directors of Slate River Holdings, LLC, a Delaware limited liability company (the "Company"), hereby adopt, by unanimous written consent, in accordance with the Delaware Limited Liability Company Act, the following resolutions with the same force and effect as if they had been adopted at a duly convened meeting of the Board:

WHEREAS, the Company previously acquired all of the outstanding equity and ownership interests in Crescendo Resources, LLC ("Crescendo Resources"); and

WHEREAS, thereafter, the Company consolidated all of the wholly-owned subsidiaries of Crescendo Resources, namely, Crescendo Energy, LLC ("Crescendo Energy") and Entrada Energy Ventures, LLC ("Entrada") (collectively, Crescendo Resources, Crescendo Energy and Entrada are referred to herein as the ("Crescendo Entities") into Crescendo Energy; and

WHEREAS, the material assets and operations of all of the Crescendo Entities are held by Crescendo Energy; and

WHEREAS, Slate River Resources, LLC ("Slate River Resources"), a wholly-owned subsidiary of the Company, is intended to be the operating entity for all of the Company's business activities; and

WHEREAS, the Company has determined that it is in the Company's best interest to operate all of its business activities as a single entity and therefore to merge Crescendo Energy into Slate River Resources, with Slate River Resources being the surviving entity.

NOW, THEREFORE, BE IT:

RESOLVED, that the Company hereby is authorized to direct its legal counsel to effectuate the merger of the Crescendo Energy into Slate River Resources, with Slate River Resources as the surviving entity, to be effective on October 31, 2005; and be it further

RESOLVED, that the Company, and any Authorized Officer (as defined below) on behalf of the Company, hereby is authorized to undertake and perform all other acts, transactions or agreements that are necessary, appropriate, desirable or contemplated by the foregoing Resolutions; and be it further

RESOLVED, that all of the acts, transactions, or agreements taken in connection with the foregoing Resolutions hereby are ratified and approved in all respects, and the chief executive officer, chief operating officer, chief financial officer, president, vice president and secretary of the Company, as applicable, (collectively, the "*Authorized Officers*") and each individually, an "*Authorized Officer*") hereby are severally authorized and directed, in the name and on behalf of the Company to negotiate, execute and deliver such instruments, documents, agreements and writings of every kind and character, together with such changes, modifications, additions and deletions as to any or all of the terms and provisions thereof as the Authorized Officer executing such instruments, documents, agreements and

UNANIMOUS WRITTEN CONSENT OF THE BOARD OF DIRECTORS
IN LIEU OF A SPECIAL MEETING
(SLATE RIVER HOLDINGS, LLC)

writings shall deem proper (such execution by such Authorized Officer to be conclusive evidence that such Authorized Officer deems all of the terms and provisions thereof to be proper), and to make such attestations to any signatures of officers of the Company, and to do and perform or cause to be done and performed all such other acts as each Authorized Officer shall from time to time deem necessary, advisable or appropriate in order to consummate the acts, transactions, or agreements contemplated by or described in the foregoing Resolutions; and be it further

RESOLVED, that the Authorized Officers hereby are severally authorized to execute on behalf of the Company from time to time, amendments or supplements to any of the documents related to or contemplated by the foregoing Resolutions as the Authorized Officer or Authorized Officers executing and delivering the same may in his, her, or their sole and absolute discretion deem appropriate to carry out the purpose and intent of the foregoing Resolutions (such execution by such Authorized Officer or Authorized Officers to be conclusive evidence that such Authorized Officer or Authorized Officers deems all of the terms and provisions thereof to be proper); and be it further

RESOLVED, that all acts, transactions, or agreements undertaken prior to the adoption of these Resolutions by any of the officers or representatives of the Company in connection with the foregoing matters hereby are ratified, confirmed and adopted by the Board; and be it further

RESOLVED, that any Authorized Officer hereby is authorized and directed to certify these Resolutions; and be it further

RESOLVED, that the Authorized Officers (together with such other officers and employees of the Company under their supervision as any of them shall direct) hereby are severally authorized and directed in the name and on behalf of the Company to do or cause to be done any and all further acts and things that they may from time to time deem necessary, advisable or appropriate to carry out the purpose and intent of the foregoing Resolutions.

[Remainder of Page Intentionally Left Blank]

Delaware

PAGE 1

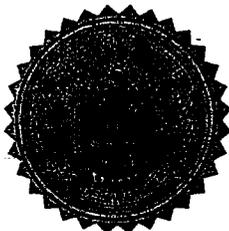
The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "SLATE RIVER RESOURCES, LLC", FILED IN THIS OFFICE ON THE TWENTY-EIGHTH DAY OF JANUARY, A.D. 2005, AT 9:34 O'CLOCK P.M.

DLR - 01 - 050
2005/01/27 AM 9:50

3919255 8100

050074460



Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 3651875

DATE: 01-31-05



State of Utah

**Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

January 31, 2006

Ginger Stringham
Slate River Resources, LLC
418 Main St, Suite 18
Vernal, Utah 84078

Re: APD Rescinded –San Arroyo Unit #51 Sec. 15, T. 16S R. 25E
Grand County, Utah API No. 43-019-31425

Dear Ms. Stringham:

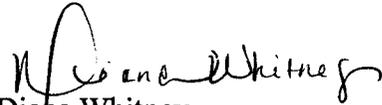
The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 5, 2005. On January 30, 2006 you requested that the division rescind the state approved APD.

No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective January 30, 2006.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,


Diana Whitney
Engineering Technician

cc: Well File
Bureau of Land Management, Moab